

SILICONE-FREE GAP FILLER TGF-Z-NS

siloxane-free, elastic



TGF-Z-NS is an electrically insulating extremely thermally conductive silicone-free gap filler. It is ideal for use in applications where thermal transfer over large gaps caused e.g. by big tolerances or different stack up heights must be achieved. The olefin based elastomer does not contain any volatile siloxanes which are inevitably emitted by silicones. Due to the specific formulation and filling with ceramic particles the material has an extremely high thermal conductivity. Through its softness the material perfectly mates to irregular surfaces thus filling gaps and operates at low pressure. By its use the total thermal resistance is minimised. The natural tackiness of the material allows for an easy and reliable pre-assembly.



Release 04 / 2016

PROPERTIES

- Silicone-free
- No emission of siloxanes through silicone-freeness
- Soft and compliable
- Thermal conductivity: 15 W/mK
- Operates at low pressure
- Shock absorbing
- Easy mounting through self tackiness
- One or two-side self-tacky

AVAILABILITY

- Sheet 150 x 150 mm
- Double-side tacky (TGF-ZXXX-NS)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

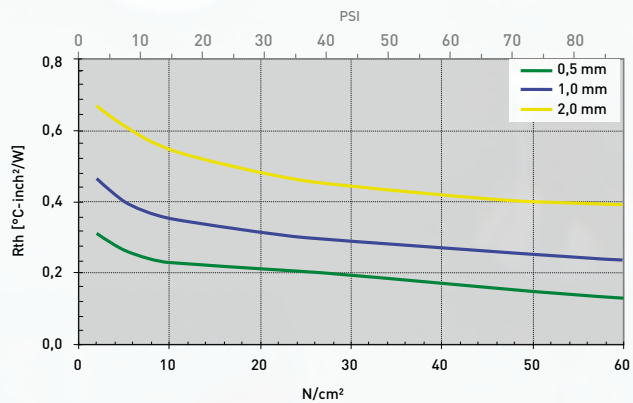
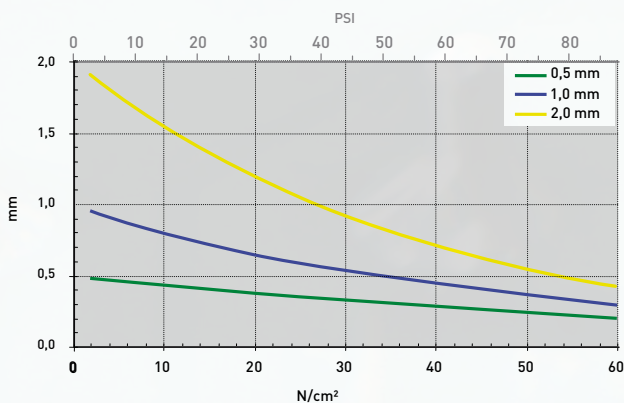
- Thermal link of:
- SMD packages
 - Through-hole vias
 - RDRAMs memory modules
 - Electronic parts to heat pipes
- For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

PROPERTIES	Unit	TGF-Z0500-NS	TGF-Z1000-NS	TGF-Z2000-NS
Material		Ceramic filled silicone-free elastomer	Ceramic filled silicone-free elastomer	Ceramic filled silicone-free elastomer
Colour		Dark Brown	Dark Brown	Dark Brown
Thickness	mm	0.5	1.0	2.0
Hardness	Shore 00	63	63	63
Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2011 / 65 / EU	Yes	Yes	Yes
Thermal				
Resistance ¹ @ 60 PSI @ Thickness	°C-inch ² /W (mm)	0.17 (0.28)	0.27 (0.45)	0.42 (0.74)
Resistance ¹ @ 30 PSI @ Thickness	°C-inch ² /W (mm)	0.21 (0.38)	0.32 (0.63)	0.49 (1.20)
Resistance ¹ @ 10 PSI @ Thickness	°C-inch ² /W (mm)	0.25 (0.45)	0.38 (0.84)	0.59 (1.68)
Thermal Conductivity	W/mK	15	15	15
Operating Temperature Range	°C	- 50 to + 110	- 50 to + 110	- 50 to + 110
Electrical				
Dielectric Strength	kV / mm	0.7	0.7	0.7
Volume Resistivity	Ohm - cm	1.0 x 10 ⁵	1.0 x 10 ⁵	1.0 x 10 ⁵

Test Methods: ¹ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: 0.5 mm / 1.0 mm / 1.5 mm / 2.0 mm

mm vs. N/cm² (PSI) / Rth vs. N/cm² (PSI)



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